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THE ECONOMIC SIGNIFICANCE OF A COMPREHENSIVE SYSTEM OF NATIONAL EDUCATION

ANNUAL ADDRESS OF THE PRESIDENT

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Members of the Association,

Somewhat more than twenty-five years ago some of us younger men who were interested in the study and teaching of political economy in the United States succeeded in organizing this Association.

The quarter of a century which has elapsed since that time has seen a great change in the standing of the professional economist. I think it is not too much to say that the voice of the student of economics as such is today more potent in the United States in the discussion and decision of public questions than it has ever been before.

I believe that this greater position of dignity and authority of the student and professor of economics is, in some degree, however small, due to the work which this Association, as a body, has accomplished; although, of course, any position of real influence or authority which economists as a class may have won has been due primarily to the actual merit of individual work—also perhaps in some measure to the increasing willingness of economic students to let purely abstract or academic questions drop into the background if thereby some positive practical advance could be made.

The policy of President Roosevelt and President Taft of selecting university men, and by way of preference, university men with economic training, for some of the most important expert positions at their disposal is a clear demonstration of the changed attitude of the people of the United States toward the scientific study of our political problems. And this policy which has been adopted by the federal government has been followed to a growing extent in our states and cities. There is a greater willingness to give the expert a hearing—at any rate, an increasing willingness to hear all sides of a problem before a decision is made, which certainly augurs well for the future welfare of the nation.

It is a source of legitimate gratification to us all that so many members of this Association have been drafted into the public

service. It is a source of still greater satisfaction that they have all made good in this field of work. Hadley, Emory, Jenks, Falkner, Rowe, Johnson, Kinley, are mere examples of a growing tendency which is full of promise for the future of economic studies and sound public policy.

At the time this Association was organized I felt that in the interest of economic and social progress there would be a decided advantage if economists could elaborate and support a positive program of economic and social advance.

My colleagues with whom I was associated in the preliminary and final work of organization did not share my views and this Association has remained, therefore, primarily a scientific body, pure and simple. I do not know, after all, that it has made any very great difference, and yet I am still of the opinion today, as I was then, that if our students of economics and politics and social science could find any questions of public moment and interest upon which they are in substantial agreement we might make a marked contribution to economic and social advance by taking a definite stand upon such questions of public policy. This consummation has indeed already been brought about in certain directions by the organization of specific associations for the study and promotion of positive economic and social problems; as, for instance, the Association for Labor Legislation which has grown out of this Association.

I think, however, that if the members of this Association could agree, for example (to take a concrete instance), upon the proper distribution of public and private expenditure in relation to national production and could work out a definite policy which would commend itself to the members of the Association, directed toward securing a more productive distribution of public expenditure, we might, without doing violence to our scientific character, produce a marked effect upon public sentiment and in the long run upon public policy.

For instance, no matter what theory we may have as to the social effects of war and the political advantage or disadvantage of settling questions of international scope by force, I think all students of economics agree that the modern world is spending an unreasonably large portion of the national wealth for purposes of war and preparation for war. No matter how high a value one may set upon the so-called moral benefits arising from an armed struggle among different nations to determine the survival of

national ideals—and I know that there are still people who maintain the moral value of such contests—no matter how high a value one may set upon the educational discipline which universal compulsory military service effects in the young men of a nation which adopts it—and I am aware that there are some very estimable people who set a high value upon such training—still I think the overwhelming opinion of the students of economics is that we have long passed the point at which it is desirable to extend still further the war budget.

The statement has been made that of late the appropriations of the federal government are distributed in such a way that nearly seventy-five per cent may be properly classed as war expenditures, that is, preparation for war, pensions payable on account of war, interest on the public debt contracted because of war, etc., etc. My own estimate runs higher.

Some twenty-five years ago I made a rough estimate of the expenditures of the federal government up to that time from the year 1789, covering nearly the first century of our national existence. I found that the total expenditure for all purposes on the part of the federal government had been something like eighteen billions of dollars, and of that amount sixteen and one-half billions had been spent for war, using the term again in its large sense, of money spent in preparation for war, in the conduct of war, and in settling the bills after the war was over. In other words, the expenditure of the federal government up to that time had been sixteen and one-half units for war and one and one-half for all other purposes whatsoever, including the so-called enormous expenditures for river and harbor improvement. Eleven twelfths of the income of the federal government spent on war!

And this is a peaceful nation!

Nobody can deny that a country which wishes to develop its civilization in an efficient way must protect itself from armed aggression and must maintain domestic order. Everyone will, furthermore, grant that if we propose, for example, to fortify our Atlantic and Pacific coasts in such a way that no fleet in the world could make a landing, it will take very much larger sums of money than we have thus far spent or have thought of spending upon war and war's alarms. But it is a long call from admitting that if we are intending to fortify our coasts in the manner suggested we must spend far more money than we are spending,

to the proposition that there is any necessity for expending such sums of money, or for undertaking to fortify our coast at all.

For my part I do not see how anyone who studies American industry and our international position can help feeling that we are already spending a larger proportion of our national income upon preparation for war than is justified by any dangers which actually threaten us.

Now I believe that if the students of economics would, acting together, that is, if this Association would persistently, in season and out of season, call attention to the danger of spending upon war an undue proportion of our national income, we should be able to affect very materially, in the course of years, the policy of the government on this point. This may serve as a mere illustration of the proposition that fundamental to any large consideration of practical economic problems and of the actual conduct of a national economy must be this question of how we propose to distribute our expenditure, for what purposes we intend to spend the national wealth which we have once created.

And as I believe that we have thus far spent entirely too much money in war and for war purposes, so I believe that we have spent far too little money for education. And it is this problem which I wish to present to your attention tonight.

The manner of the *consumption* of wealth has a great and fundamental effect upon the *production* of wealth and upon the possible increase in the production of wealth. That is, some forms of consumption are distinctive hindrances to the increase of wealth and no theory of production, no system of practical politics can be in any sense complete or satisfactory which does not bear this fact in mind.

So this evening I desire to discuss somewhat fully, from the standpoint of practical politics, the effect of a broad scheme of national education upon the increase of national wealth and what policy we ought to adopt in regard to it.

The subject of my remarks this evening is, the Economic Significance of a Comprehensive System of National Education.

I mean by system of national education in this title, a system of education so extensive in its scope as to reach every child, and for that matter every adult too, within the bounds of the United States or in the territory subject to its jurisdiction.

I mean by a comprehensive system of national education, a system which will excite and develop all sides of the child and

adult, which will call forth and train all the forms of talent and ability to be found in the children and adults of a great nation.

I mean by the economic significance of such system, the relation which it would bear to the production of national wealth.

I need not say that no system of national education, in the sense in which I use it here, has ever existed in the United States. There are thousands, nay one may say hundreds of thousands, of children within the United States and within the territory subject to its jurisdiction who have never been reached by systematic school education of any sort. There are thousands more children in the United States and in the territory subject to its jurisdiction who have never had the benefit of any schooling beyond a mere attempt to bring to them the opportunity to learn, in a feeble way, the elements of the three R's; and almost no attempt has been made to reach in any systematic way, for the purpose of developing all the talent within its children, the population of any single state of the American union. Nor has any attempt worth mention up to the present been made to strengthen and supplement such elementary education as is brought within the reach of the young children of the community by a system of encouraging and sustaining the further prosecution of the education of the schools, in later youth and earlier or later adult life.

All economists have recognized, though I think in a very inadequate way, the importance to the production of national wealth of the intelligence, knowledge, and skill of the laborer. It would be an observation that could scarcely escape the attention of any student of economy at any period of the world's history that the more intelligent and better trained the laborer may be, the more efficient would he be, other things being equal, as an instrument of production in the general scheme of national economy. But even these economic writers who have given most attention to this aspect and have dwelt upon it most fully, seem to me not to have realized the *possibilities* for the increase of national wealth which lie in the increased intelligence, education, and skill of the laborer. Very few of them have recognized the extent to which this intelligence, this education, and this skill may be increased by the conscious taking thought and conscious action of the community, directed toward this specific end. Still fewer of them have recognized that an educational system, in this large sense in which I have used it, may above all be an important factor in the development of that *directing, managerial, initiating*

talent which forms such an important element in the system of national production, and which distinguishes nations and races in quite as marked a way as the quality of the laborer himself.

I am aware that some authorities are inclined to deny that a nation may by conscious effort increase the number or the potency of these fundamental elements of national production. They are inclined to think that just as the coal, and natural gas, and gold and silver, and the possibly arable land are things given once for all, so national talent and national ability are, so to speak, fixed quantities. A nation cannot materially increase either their amount or their potency by any conscious effort looking toward their promotion.

Thus the great Bavarian economist and statistician, Wilhelm V. Hermann, one of the shrewdest of the German writers on economics, is very outspoken in his view that no nation can through its school system or its educational system really increase greatly the efficiency of its national industry. He says, "wie er geboren, so ist der Mensch sein leben lang." "As the child is born so the man remains as long as he lives:" though even he would allow, I presume, that if we could have caught his grandfather and trained him and also his father we might have improved the grandson.

But, I believe that this is a mistaken view. I share the unconscious feeling which seems to animate the American people to an ever increasing extent that, by systematic effort, the latent national ability may be called forth and may be trained to such an extent as to make the result of such an educational system essentially different in quality and in kind, and not merely in quantity, from that which would be the outcome of letting things take care of themselves.

It seems quite probable that a people like that of the United States may, by systematic and persistent effort, develop to absolutely unheard of and undreamed of proportions, the ability of the nation in all the different directions in which human faculties may be exerted.

Every student of human civilization must be struck by two things: first, the large number of different elements which must conspire together at any one time in order to produce a great increase in national wealth; and, on the other hand, how few people after all in the history of the race have really contributed in any important way to working out the problems upon whose

solution the next great advance in civilization depended. No such production of national wealth as has occurred within the last generation could have taken place, of course, without the co-operation of countless influences reaching back in their development and origin into the remotest periods of the past. But very small is the number of men after all who have really contributed by their scientific discovery, or their inventive genius, in any important way to this progress. If we could multiply that small number by two, or three, or four, or five, or ten, or a hundred—as might easily be done if we were to adopt a system of education which will discover, call forth, and train all the talent of the community to its highest efficiency—the progress of civilization would be correspondingly hastened. The human race has spent such a large part of its total wealth in war that we have little idea as to the enormous progress that might be achieved if the energy and attention of the race could be turned as fully and completely toward this problem of developing the race on the side of its industrial talents as it has been turned to the work of destruction.

This progress does not always seem rapid. The race, of course, must have time to develop, must have time to grow, in order to be capable of the intellectual effort, nay even of the prolonged physical effort, involved in the production of such enormous quantities of material wealth as have been produced within the last century. It is inconceivable that the African or the American Indian, as Columbus knew him, or generally speaking any barbarous peoples, should develop within a generation or even two generations those particular qualities to that particular extent which are necessary to develop and maintain a high degree of civilization. The mere qualities of endurance, or persistence, of imagination, necessary to enable the civilized man to continue at even the rudest of civilized occupations long enough to work out their natural results are lacking to the barbarian.

Now, of course, it is undoubtedly true that the possibilities of any system of education are strictly limited by these fundamental facts founded in the nature of individuals and of races. But, given the civilized white or yellow man as we know him today, as the result of countless generations of ever expanding civilizations, my proposition is that such a nation can, by a conscious effort, increase to a very great extent the production of national

wealth, by discovering, developing, and training the productive ability of its population.

The American people have been much concerned of late about the conservation of their natural resources, and they may well be thus exercised. Waste represents an absolute loss in the human economy. There is no doubt that we have permitted the national wealth of the country to be exploited in an uneconomical way in many directions, owing to the greed, or shortsightedness, or both, of private interests. This exploitation has steadily been accompanied at many points by waste. Waste is, economically speaking, a sin for which there is no pardon. Its penalty must be borne either by the people who are guilty of it, or by those who succeed them, and the American people has undoubtedly been wasteful in the exploitation of its natural resources. We have mined our coal oftentimes in such a way as to destroy forever the value of a large part of it. We have allowed our natural gas in great quantities to escape into the atmosphere or be burned as it came from the bowels of the earth, with no resulting economic gain. We have undoubtedly used at many points wasteful methods in the cutting off of our forests, and have failed to observe that the larger interest of the community as a whole demanded a greater care in the removal of our timber wealth.

But after all, the mere preservation of natural resources is not in any proper sense of that term a conservation of natural resources, that is, such a care of the natural resources as will work out the largest economic result. The American Indian had preserved the natural resources of the North American continent up to the coming of Christopher Columbus, and for anything that we can see would have preserved them for countless generations. The Mexican peon still preserves the natural resources of great stretches of the most fertile Mexican territory. The savages of Africa, and generally speaking of all countries, preserve the natural resources; but we can hardly speak of them as conserving them in any proper sense.

There will naturally be great differences of opinion as to whether any particular policy in exploiting the forests or the mines or the fields is, economically speaking, wasteful or not. That which seems to be wasteful at one time and under one set of conditions may be the height of economy under other conditions. The lavish use of natural resources may in some places be the condition of developing a civilization which may subsequently find it necessary

to adopt entirely new principles of management, if its system of exploitation is to be as economical as was the former.

However, no matter how liberal we may be in permitting to count as true economy the lavish use of natural resources in the development of a civilization, I think there is general agreement after all among students of the subject that the people of the United States have at many points been wasteful in the true sense of that term, namely, in producing their sum total of national wealth at a cost beyond what would have been occasioned if a better system of exploitation had been adopted.

But with this concession, I desire to emphasize again what seems to me to be the fact in the case, that the *discovery*, *development*, and *training* of the *talents* and *abilities* of our people is of far more significance to the continued and increasing production of national wealth than is the so-called conservation policy, important as that is. We may fairly enough, if we are wise in our day and generation, through the increasing intelligence of our people, *develop the conditions of an increase of national wealth* far more rapidly than we are *losing* them through the exploitation of our natural resources.

I have myself never been able to become excited over the demonstrations which are afforded from time to time that the human race is destined ultimately to poverty and despair because of the exhaustion of our coal fields.

We certainly should not waste our coals in the sense of using them up with nothing to show for such use. But, on the other hand, the proposition to preserve the coal which we may profitably use now in the development of industry or increasing the comfort of humanity because we are afraid that our posterity may suffer from cold or hunger, would seem to me to be absurd. I believe that if the race were to give its attention steadily to the scientific and practical investigation of means of laying under direct contribution the energy of the sun, of the falling water, the flowing stream, the sweeping tides, the rushing winds,—I say if the race would spend a tithe of the money upon the study of that problem which it has given to the study of the means of destroying its members, we might safely proceed to use up our coal fields to the last ton, relying upon our ability in the long run to discover adequate—nay more than adequate—substitutes for the energy and light and heat pent up in this wonderful storehouse of nature.

The same thing is true in regard to the exploitation of the

soils. We have not as yet reached an ultimate judgment as to the conditions of soil fertility, or as to the conditions under which the productivity of soils is maintained or destroyed. We have found out a few things in this respect, but the world of what we do not know is so much larger than the world of what we know that for my part I have never been able to feel that extreme anxiety in regard to the depletion of our soils that many of my colleagues who are engaged in the study of soil chemistry and soil physics and soil biology have thus far felt. There is doubtless such a thing as ruining the soil. There is such a policy as the ruinous exploitation of the natural qualities and resources of the soil; but I have a firm belief that if the nation, or the race, would give its attention and its thought as seriously to the problems of soil fertility as it has to problems connected with the army and navy we should find ways and means of increasing our crops while protecting and restoring the fertility of soils which at present are quite beyond the possibility of even our imagination.

In the same way, while we are undoubtedly guilty of great waste in the exploitation of our stores of iron, and such waste ought to be stopped, yet I have full confidence that if we should give thought and attention and money to scientific investigation directed along right lines we should find some substitute for iron fully as efficient and fully as helpful as iron itself, long before it should fail us. And the same thing is true to a greater or less extent of all our national resources.

I am aware that this view of human progress is scouted by many as lacking substantial proof of its correctness, as mere nonsense and the stuff that dreams are made of; and it is fortunately not necessary for me, in order to make my point, to demonstrate the full truth of the proposition, since all that is requisite for my present purpose is to secure your consent to the proposition that we may *materially* increase the conditions of national wealth by a properly considered educational policy.

That the skill and intelligence of the average laboring man in the United States were greatly increased by the astonishing development of our elementary and secondary school system during the years following the war must, I think, be conceded by any student of our national history. And yet that education was very largely limited to giving the rudiments of an English education, such as reading, writing, and ciphering—and that not to all by any means.

When our secondary school was developed, though at first very narrow in its scope, it accomplished even more striking results, because it helped develop the directing talent in the community.

A system of national education having in view the objects which I have suggested must include, speaking generally, for the people who remain in school, two elements, which for purposes of discrimination we may generally describe as the liberal and technical elements. Under the head of the liberal element I should include those fundamental features such as reading, writing, and ciphering, which are the keys, so to speak, to the experience of the race. But I should not by any means limit the scope of this instruction to these three R's, for it is certain that one of the fundamental objects of a national system of education can never be realized unless the range of instruction in the elementary school far exceeds these so-called fundamentals. Certainly one of the purposes of any system of education must be to discover the talents of the child, must be to find out in what way, that is, by the special development of what faculties, he may do his greatest service to his day and generation. Some men make their most important contribution as ditch diggers, as farm hands, as mechanics in the mills; others as directors in these occupations; still others as artists, teachers, lawyers, or physicians. A national system of education ought to find out the peculiar abilities of the child and put him in a way to develop them. This means, of course, that among the so-called fads, drawing and singing and a wide range of art work, should be represented in the elementary school as well as the teaching of reading, writing and arithmetic, geography and history and science.

But no child can afford to spend even the first twelve years of his life without coming in contact with some kind of training of the body and training of the mind which touches in some direct way the possibilities of his future occupations; and so manual training and domestic science, at least in their rudiments, must form a part of this fundamental, this common instruction which all children should have. That is to say, when our compulsory school laws are universal and really enforced, the school will have before it the problem of occupying in the best way from seven to eight years of the pupil's life; and in this time every child, not merely the white children, but the colored children as well; not merely the citizens of Massachusetts and New York, but those of Alabama and Louisiana; not merely the children of Ohio and

Illinois, but those of the mountain regions of the South and those of the semideserted portions of the older states, shall without exception have access to these opportunities.

But a national system of education will include, furthermore, for every child, an opportunity for technical, special training, looking forward to the career which the child is expecting to take up or which his parents are planning for him. This means in a large sense—and why should we hesitate today to speak it out boldly—a system of trade schools, a system of occupation schools so universal, so comprehensive, varying, of course, in character with the conditions in the different localities, that every child shall have the chance to prepare himself more efficiently for his life work in a trade or other occupation.

It is national waste of the first magnitude to turn children into the avenues of trades and commerce and industry in this great nation today without some of that kind of training for such work, which the school best of all can give. The apprentice system, as you all know, in the old form, if it ever was the ideal thing which it was supposed to be—and for my part I can find no evidence that it was—has at any rate today gone to pieces. The children of the community do not have a fair opportunity to prepare themselves on the technical side for efficient work. A portion of this preparation, moreover, can be best given for nearly every occupation in the school, and that portion should be the heritage of every child.

But hundreds of thousands of children must, as a matter of fact, under our present economic conditions, go directly and immediately from the compulsory school period into the process of earning a living. And the demands of industry are such as to take practically all the time and strength of these young people from the very moment of assuming this new burden.

It lies in the interest of the community, looking upon these children as mere instruments of production, regarding them as mere means of increasing the national wealth, to see that conditions are such as to make them ever more efficient elements in our scheme of national production. This means that the school system must provide some systematic, continuation school opportunities; and if necessary that the laws regulating the labor of youth shall be so changed as to provide an opportunity for all young people, from the completion of the compulsory school age and for at least two or three years after, a chance to get that benefit which comes

from the assistance which a well organized school agency can bring to them, in the form of definite school instruction. This means, of course, a radical and pronounced, and withal expensive, addition to our educational system.

I would not have you understand that I believe that a systematic school education is the only training of value for the youth of a country in preparing them for their work as productive agencies. Far be it from me to maintain any such proposition. I have seen many cases of children who in my opinion would have learned far more on the farm, in the shop, and in the office than they were learning at school. On the other hand, there is not a single occupation which requires skill, industry, and strength, in the training for which the school, if properly conducted, cannot contribute a more efficient element than any other agency at work now in our society; and my proposition is that our educational system be so organized that this element can be introduced into our school system in the first place, and into our industrial system in the second place.

What I have said thus far in regard to the elements which enter into a comprehensive system of national education, applies to all modern nations alike,— to England, France, and Germany, to every civilized country of Europe or of Asia.

But this is especially true in the United States today. We are trying to be a republic. We are trying to develop a democratic state. We are far from having reached any such consummation, but at any rate we are working toward it; and with every passing decade I believe we are making some progress in spots; and if in some places there seems to be deterioration or retrogression, owing to peculiar circumstances, yet in others there are evident signs of rapid evolution toward higher things.

Now no state can, politically speaking, be a true democracy, unless it has also become a true democracy *industrially* speaking; and one of the elements of a true democracy, industrially speaking, is an opportunity for every child to develop the industrial capacities within him to the very highest possible extent. This cannot be done unless aside from his fundamental education involved in the three R's, and the things which go with them, is also given a chance for the acquirement of technical skill in connection with intellectual development, so that a combination of industrial facility with a developing brain and a developed body may be effected.

Such a system of education is especially necessary in the United

States today because of the terrific strain to which our institutions and our life are being subjected by the enormous immigration into our body politic and body social from nearly every land under the sun.

We do not yet know very much about the effect of the mixture of nationalities upon national progress. We do not even know enough about the laws of biology to determine whether the outcome of such a mixture will be good or bad; but one thing I think we can be perfectly sure of, and that is that the impouring of these enormous masses of people of such varying intellectual standards; of such varying ideals, political, social, and religious; of such physical differences—must threaten in the most marked way the ideals and practices and institutions of this great republic. The ultimate outcome may be good, for I am one of those who recognize very distinctly that the ideals of some of these immigrants are in certain directions higher than our own; that they are bringing to us qualities in which we are defective; and I have great hope that, in the long run, great good will come out of this accession to our ranks. But in the meantime everything threatens to become more or less unstable. It becomes more difficult to forecast what is going to happen under a given set of conditions; and in all this development a comprehensive system of national education is needed, a system which will take hold of everyone of these foreigners and of his children and work them over and digest them, so to speak, make American citizens of them, enable them to comprehend our history and our ideals, help them to appreciate our standards, and, if theirs are higher than ours, help them to make these effective. In all this work nothing is for an instant to be compared in effectiveness to such an educational system as I have been outlining, a system which will actually take hold of every child; will give him the elements of a common education, and will train him for efficiency in American life and industry.

Friends, we are very prone to brag on our educational system and our great facilities, but it does not do for us to close our eyes to certain plain and simple facts; and on such an occasion as this we ought to consider them with care. The fact is that no civilized nation has within its midst any population of equal numbers so sunk in ignorance, so beyond the reach of modern educational influences, as the negro population of the United States, particularly in those sections where, owing to their numbers, they practically become a dominating element,—not dom-

inating in the sense that they formally control, but dominating in the sense that the whole social and educational and industrial policy must turn around them, and reckon with the facts of their intellectual and moral development.

The industrial training of the Southern negro is one of the fundamental national needs of this great country. But it isn't a thing which merely concerns Louisiana or Alabama or Georgia or Carolina. It is something which affects the interest of every part of this great nation.

Owing to social conditions it is necessary for the South to provide two entirely different, distinct, though parallel, educational systems. Now it is simply impossible for the Southern people to provide two efficient systems of education. The burden is too great. The nation ought not to ask it of it. The nation ought to insist that this problem be taken up and solved, but it ought to be willing to help bear the burden of its solution.

But aside from the negroes, I think it is also safe to say that there is no population of equal promise, of equal abilities, so devoid of educational facilities in any large civilized country as are the mountain whites along the Appalachian Mountain chain, and into the valleys and over the mountains of that great region. Here is a population of extraordinary value from an industrial point of view, if it were made available for national development. The men whom these people have contributed to the life of America are an illustration of the wonderful stores of unused ability upon which the nation has not drawn at all. It would be a good investment for the United States of America as a nation to put at national expense into this region an efficient educational system, even if the states concerned did not contribute a single dollar to it. The educational condition of the Southern negro, the educational condition of certain portions of the Southern whites, is a reproach to the American nation.

But these two striking cases do not by any means exhaust the illustrations of my proposition. In many respects, in spite of all our great development, in spite of our growth, of which we may be proud, we are still lagging behind not only our own possibilities, but the actual achievements of other nations. The rural schools over a large extent of the wealthy Northern States are taught by a more uneducated and a more inexperienced class of teachers than would be accepted as satisfactory instructors of the young either in England, France, or Germany. And even if

we go into our large cities, under the most favorable conditions, we shall find that we have only begun to make progress in the direction of the technical training of our youthful population, which I have indicated as a necessary element in such a scheme of education as I have proposed.

Now my next proposition is that a system of education which is to accomplish the things I have sketched out, and really become effective in this large sense for an increase in national production, must be national in scope. That is, it must reach everybody throughout the entire extent of national territory. It must be national in its support, that is, the nation must assist in carrying the burdens of such a scheme, and not leave it altogether to the locality or the state; and it must be national in its ideals. In other words, it must have before itself as animating it, underlying it, permeating it, crowning it, if you will, the idea of developing to the highest possible extent the nation whose instrumentality it is.

We have thus far, with some exceptions which I shall note later, depended for the evolution of our educational system largely upon the good will and public spirit of private benefactors, God bless their names! and upon the more or less haphazard inclination of localities or states, spurred on in certain directions as they have been by national legislation.

Now we cannot safely rely upon the desire of the local community to work out an adequate educational system. Our history has shown that there have been whole states, which for long periods of time, have done absolutely nothing toward the development of an adequate educational system. There are today communities in every American state which, if they were permitted by law to do so, would practically abolish even the elementary school, which gives the modicum of opportunities, characteristic of a backward, one-room country school. We must as a nation have a definite policy looking toward the development of our educational facilities, if we are within our day and generation to see results at all commensurate with what would be perfectly possible under the inspiration and working of such a system.

It is furthermore not fair to insist that the locality or even the state shall bear the entire burden of such an educational system. There is no function which has been thus far left or delegated to the locality or to the state more truly national in its scope than is education. The remotest school district in the mountains of Georgia or Tennessee may by great sacrifice support

a school in which some of the brightest children of their generation shall be educated, children who on growing to maturity move away into some other district, some other country, some other state, and bring into the particular locality in which they may finally settle all the advantages which this educational process has brought to them. How many of our western cities have grown strong because of able and educated men who have come into them from the districts of New York or New England! How large a part of the funds of the New England country schools for the last fifty years have gone for the education of men whose contribution to the locality in which they lived and to the nation came not through New England at all, but through Illinois, and Wisconsin, and Minnesota! In fact no one can tell what particular portion of the country will profit most by the fact that the people in some remote school district of Pennsylvania have taxed themselves to the limit for the purpose of training in the best possible way the children of that district. One may safely say that in all probability the chief advantage would rather accrue to some other district than to that which made the sacrifices. Now as long as that is true, here is a logical, or ethical, reason, if you please, why a part of the expense of the local school and the local school system shall be borne by the nation.

This would be still truer of this comprehensive system of national education which I have been discussing; for in proportion as the expense increases, in proportion as the service of the school becomes larger, in proportion as it serves a greater range of human ability, does this principle which I have referred to hold good, that the results of this training accrue, in all probability, to the advantage of some other locality, some other state, some other section of the country.

There is another reason already noted in the case of the South why the nation must assist in the development and support of the kind of system which I have been describing, and that is the simple one that many of the localities, many of the states, cannot of themselves raise the necessary funds to establish, develop, and maintain such a system of education. There are many sections of even the wealthiest portions of the country, the states north of Mason and Dixon's line and east of the Rocky Mountains and beyond the Cascade range, many localities which without the aid of the state, in large measure, could not possibly undertake to raise the funds by any reasonable system of revenue open to them,

which would be necessary for this kind of an educational system.

To the federal government was assigned when it was organized many of the most fruitful sources of revenue. To the states were left many of the most burdensome items of expenditure. The nation may, by a national revenue system, raise certain funds far more easily, with less burden to the individual and less burden to industry, than they can be raised either by the state or the community. A reasonable distribution, therefore, of public burdens between the state and the nation would call for such a readjustment of the burdens of this educational function conceived in this larger way.

The locality should do its part; the state should do its part; the nation should do its part, toward raising funds necessary to maintain this comprehensive system of national education.

There is another reason, an important one too, why the nation should make its contribution to this educational function; and that is that as education is in essence a national function, so it ought to find a corresponding external recognition of that fact in the national budget. In this way education becomes the subject of national discussion. It assumes gradually the relative importance which it ought to occupy as a national issue in the minds of men. And when the subject of education and what the nation ought to do for it becomes the topic of congressional debate, and when once a year the question is raised how much the federal government is contributing or ought to contribute towards this purpose, when the question is discussed how efficiently this money is used, we gradually secure from the public that attention to the importance of education as a fundamental national issue which can come in no other way. In England, France, Germany, and now in all the other civilized countries including Russia, education has become a national issue. The platforms of great political parties are carefully examined by the thoughtful portion of the community, to see whether they propose to provide adequate assistance for the support of education; and in Germany practically the same thing is effected by the fact that Prussia is so overwhelmingly the German Empire that the discussion of educational questions in the Prussian diet attract almost the same attention that they would in the Imperial diet itself.

Now one may raise the question, what is a practical plan, and what do you propose as a positive concrete step which may be taken in this direction?

My proposition is very simple: that the federal government shall grant to each state in the Union a sum of money equal to one dollar per annum per head of its population for the support of elementary and secondary education, that is, for the common schools; and that this money shall be expended for the purpose of strengthening what, for lack of a better term, we may call "practical" education, that is, in agriculture, the mechanic arts, the trades, domestic science, commerce and business, etc.

This would represent a contribution from the federal treasury toward the support of elementary and secondary education of approximately one hundred million dollars a year,—less than the amount given to the building of a navy, far less than the amount given to general military purposes, a sum which many people would think so small as compared with the expense of such an educational system as this that it would hardly be effective in a large way.

Now the objections to a proposed grant of this kind are obvious and potent. That they are really potent is evident enough by the fact that in spite of more or less discussion of this subject for fifty years past we have not yet made any very great progress toward bringing it to pass. The first argument which naturally suggests itself is that education is not a federal function. If by this is meant that the constitution of the United States does not mention the support of elementary and secondary education as one of the functions of the federal government, there would be, of course, no discussion. If, however, is meant that this is not *properly* a function of the federal government, that is surely begging the question, since that is one of the points to be established. I think the argument which I have made as to its necessity for the national welfare, as to the national benefit from the education of every individual child along the lines I have suggested, and the impossibility of securing the benefits of this education to the communities which have had to bear the expense, is a satisfactory answer.

It may be said, moreover, that the federal government from the very beginning of its existence has looked upon education as in a peculiar sense something which the federal power must, within the limits within which it was content to act, have a special regard for. You will remember the famous declaration involved in the ordinance of 1787 in which Congress declared that the promotion of education was one of the fundamental purposes of government.

When later this territory was divided into states, the federal government gave, from lands which belonged to it, large endowments for the purpose of assisting the localities in the further development of the schools and for the purpose of stimulating local and state activity in the direction of developing and supporting schools. The federal government continued later this same policy of large endowment of education within the states by these grants of federal land; and finally in the later legislation it did not content itself with giving these lands to the states for the purpose of education, but it made it a condition of admission of these states to the Union that they should administer these funds for this purpose and for no other.

I think it is beyond doubt that the policy of the federal government, in thus granting to these newer states these federal lands, has brought about the wonderful developments in popular education which we have thus far achieved in this great Mississippi Valley and in the states beyond the mountains. It was not merely, as I have suggested before, because these lands were given to start these schools, for in many cases the states in the first instance, not being inclined to education, dissipated these funds, used them for other purposes, and covered themselves with disgrace for the flagrant way in which they disregarded the implicit pledges involved in the acceptance of these lands for educational purposes. But still more than the positive support which these lands gave to common school education was the stimulus, was the example, held continually before the minds of the community, set by the federal government, of giving a portion and a considerable portion of the public wealth to these purposes. It was a constant reproach to the people of any state who dissipated these funds or used them for other purposes, that the federal government had set apart these lands out of the territory of the nation for public education. The example was a constant challenge to the people of every state that they should also give attention to these same questions, and that as their wealth and strength increased they should develop ever more strongly and completely this system of popular education.

On the whole they have done so. The day of squandering these great endowments of education has passed away, though in every state where this fund is great the public must safeguard its interest with great watchfulness.

But the federal government was not content with giving these

lands to the states for elementary education. It went farther. It gave to each of the states certain lands for the development of higher education, the so-called college and seminary funds.

Finally, after long discussion and long agitation stretching over more than thirty years, the federal government in the year 1862 granted to each state in the Union thirty thousand acres of land for each senator and representative in the federal congress for the purpose of establishing in each state a college for the promotion of agriculture and the mechanic arts. This was a grant not merely of public lands to the states within which the public lands were located, but it was a grant to each state in the Union permitting it to locate its lands where it best could under the provisions of the law.

A generation passed away and the federal government appropriated in cash to each state in the Union, March 2, 1887, the sum of fifteen thousand dollars for the development of an agricultural experiment station, this money to be paid out of the proceeds of the sale of public lands. Only three years later, August 30, 1890, the federal government returned to the same proposition and then for the first time, with the utmost directness, it appropriated money from the federal treasury for the support of these colleges, out of funds not otherwise appropriated. And thus, in form as well as in reality, the federal government has committed itself to the proposition of supporting higher education along practical lines, out of the federal treasury, within the limits and under the auspices of the states.

This has turned out to be one of the greatest endowments of higher education ever made by any government. And it has turned out, I believe, to be one of the most beneficent series of grants made by any country in the support of higher education. And it has demonstrated several things. First, that a comparatively small grant from the federal government for a given educational purpose, so far from laming local effort or local initiative, will greatly stimulate the efforts of localities and of states to develop still further the education which is thus endowed.

According to the last report of the United States Bureau of Education, sixty-nine institutions were receiving the benefits of this congressional appropriation. The total appropriation made by the federal government, exclusive of that for the agricultural experiment stations, was somewhat less than two million dollars per year. The total expenditure of these institutions was over

eighteen millions of dollars. In other words, for every dollar given by the federal government the states have contributed, roughly speaking, eight dollars in addition. A more striking illustration of the stimulating effect of a wise grant of public money for a definite purpose has, I think, rarely been afforded.

The contribution of this system of schools to the wealth of this country is something which can hardly be estimated. It has first of all trained the youth of the country for practical occupation in the field of agriculture and engineering in such a way as to raise the level of the practice of these professions throughout the United States.

It has also contributed very greatly in addition to our knowledge of the conditions under which a productive agriculture and a productive industry may be developed. It has been estimated that the benefits of the discoveries emanating from these centers of agricultural and engineering education has been such as to give a positive increase in national wealth in every single year larger than the total cost of all these institutions from the beginning to the present.

Surely in the light of these facts it cannot be said that, practically speaking, education has not been recognized as a function of the federal government. As a matter of fact, it has been so recognized to such an extent as to establish the principle beyond question.

But after all, the federal government has done comparatively little aside from the land grants—which, it is true, were an important contribution—to stimulate, or aid in, the support of elementary or secondary education. It is interesting to note that this grant on the part of the federal government to higher education was supplementary to the work which was doing in the states themselves in this field. It did not undertake to endow the American college of the traditional type or to endow professional education. The men who were behind this measure seemed to think that those particular phases of national education would take care of themselves. The grant was made definitely for the purpose of developing the practical side of higher education, of training for callings and professions for which no training had been, up to that time, provided in the educational system, either public or private.

This was a wise measure. First of all it was a strategic move to ask the federal government to give money in aid of education

in a field in which education had been sadly neglected and in which it was not likely to be developed within any time which men could foresee, unless the federal government gave this aid.

The same thing is today a strategic move, namely, we should ask for this money from the federal government for the purpose of developing the practical side of education in our elementary and secondary schools. It should be strictly a supplemental grant, in aid of this work, not an attempt to assume the responsibility of its entire support.

There is little doubt that if such a grant were made it would stimulate the development of elementary and secondary education along the lines thus far suggested, in a remarkable way and with more astonishing results than have been accomplished in the field of higher education. To accomplish this result of stimulation, it is not necessary that the federal government should assume the entire burden, or that it should do more than pay the comparatively small part of what would ultimately be its share of the expense.

One other objection, of course, to this kind of proposition is very commonly made and occurs to everyone. Will not such a scheme as this strengthen enormously the tendencies which are making for centralization in the United States? Will it not strengthen greatly the power of the federal government and diminish still more the activity and energy and initiative of the commonwealths themselves?

The proposition is that this money be given to the states to be expended by them for this purpose. Of course it would be necessary to utilize that amount of federal—I will not call it supervision for it is not that—but federal bookkeeping which would make sure that this money given for this purpose should be used by the states for the purpose for which it is given. Otherwise it should be left entirely to the states to manage, as the law has left it to the states to determine the manner in which the funds shall be expended which were granted for the colleges of agriculture and the mechanic arts.

That such a measure would enlarge the view of the federal government, so to speak; that it would bring into the range of federal thought and federal activity the subject of education in a large way, there is no doubt; and that is one of the strongest arguments in its favor. If this appropriation of federal funds in aid of elementary and secondary education were incidentally to

become so large as to diminish somewhat the amount of money wastefully spent upon so-called internal improvements, or if it would diminish or at least call a halt to the increasing expenditures for the army and the navy, this to my mind would be an additional reason for the adoption of such a plan.

You will remember that we had twenty-five years ago a similar proposition before the federal government, known as the Blair bill, under which it was proposed to distribute fifty millions of dollars to the states in aid of elementary and secondary education. I was a warm advocate of that proposition at that time and I had a good illustration not long ago of how the deeds of men live after them, when in an eastern paper some reference was made to me as that crank who had urged the adoption of the Blair bill.¹

I remember a conference which I had during that time with Mr. Godkin, the editor of the *New York Nation*, one of the most trenchant political writers of the time, and one who was opposed to the appropriation contemplated by the Blair bill. He objected that the national expenditure had already run to such limits as to threaten national bankruptcy, and that the nation could not undertake such additional expenditure of this sort without seriously impairing national credit. I urged upon his attention an entirely different view, namely, that we might determine, to some extent, if we took hold of the matter in earnest, the distribution of national expenditure. We might determine that some of it should be spent for education instead of having it all spent for war; but that the circumstances of the time indicated as clearly as anything could that expenditure was bound to increase, and no amount of effort was going to prevent a large and continuous increase. We might, by taking thought, get those larger expenditures made on behalf of important things, but if we did not do that the expenditures would go for impossible harbors,

¹Still earlier a proposition was made by James G. Blaine to appropriate the income of the internal revenue tax on intoxicating liquors, estimated at \$60,000 per year, to this same purpose. I argued in favor of this policy in the columns of the *Illinois State Journal* published at Normal, Illinois, in the October and November issues of 1882 and January and February 1883. The *Chicago Tribune* in December, 1882, strongly endorsed editorially the position of the *Illinois State Journal*. And the Illinois Teachers' Association on December 29, 1882, passed resolutions favoring the project. Later, on December 29, 1883, the *Philadelphia Press* gave space in its columns for a detailed argument in behalf of this measure. But in this case as in that of the Blair Bill itself nothing was finally accomplished in the direction of securing the passage of such appropriation at that time.

and still more impossible rivers; would go for manufacturing cannon which would rust out and become worthless before they should ever be used; would be spent in inaugurating a "world policy" which was sure to come if the nation continued so great and the revenue continued to grow.

I believe the same thing is true today. One of the arguments, in my mind, for the assumption of a part of the burden of national education by the federal government is that if the federal government assists more fully in bearing the burdens of the nation as it ought to, it will not be tempted to add increased burdens to the nation by wild policies of world adventure, to which it will be tempted in ever increasing extent, as national revenue and therefore the possibility of such interference increases.

Friends, if we could secure the establishment in our day and generation of such a comprehensive system of national education—namely, one which would reach every child, white, black, yellow, rich, and poor, and discover and call forth all his capabilities—and then a system which would go farther and provide for the training of those abilities to the highest possible point, the nation would enter upon a period of increase of national wealth the like of which has never been seen in the history of the world. When all the abilities of the community have an opportunity to be developed and to be employed in the service of the community and in the development of civilization; when the attention of the nation is concentrated upon the development of its own people first of all, and not upon world domination, not upon world influence, not even primarily upon world *service*, but upon the development of its own people and their capacities; then we shall see a new heaven and a new earth; and when we set before ourselves as a nation the problem of developing the bodies, the brains, and the character of our children to the highest degree of perfection, all these other things—national wealth, world influence, and world power—shall be added unto us.